

splash!

quick facts on...

Lake Tohopekaliga

Drawdown and Habitat Enhancement Project

OCTOBER 31, 2003

The South Florida Water Management District

is a regional, governmental agency that oversees the water resources in the southern half of the state. It is the oldest and largest of the state's five water management districts.

Our Mission is to manage and protect water resources of the region by balancing and improving water quality, flood control, natural systems, and water supply.

Lake Tohopekaliga, commonly called Lake Toho, is located in Osceola County in central Florida. Over the last 32 years there have been three lake drawdowns and a fourth is scheduled to begin in November 2003. The value of drawing down lake water levels for habitat enhancement has been established through 30 years of practical research by the Florida Fish and Wildlife Conservation Commission.



Background

At 18,800 acres, Lake Toho is the second largest lake in a fifty-mile-long string of lakes in the Kissimmee Chain of Lakes. Located just south of Orlando, the lakes comprise the northern section of the greater Everglades watershed that lies within the jurisdiction of the South Florida Water Management District. Water flows from the chain of lakes into the Kissimmee River and onward into Lake Okeechobee. To manage water levels in Lake Okeechobee, water is released south to the Everglades or to coastal estuaries west through the Caloosahatchee River or east through the St. Lucie River.

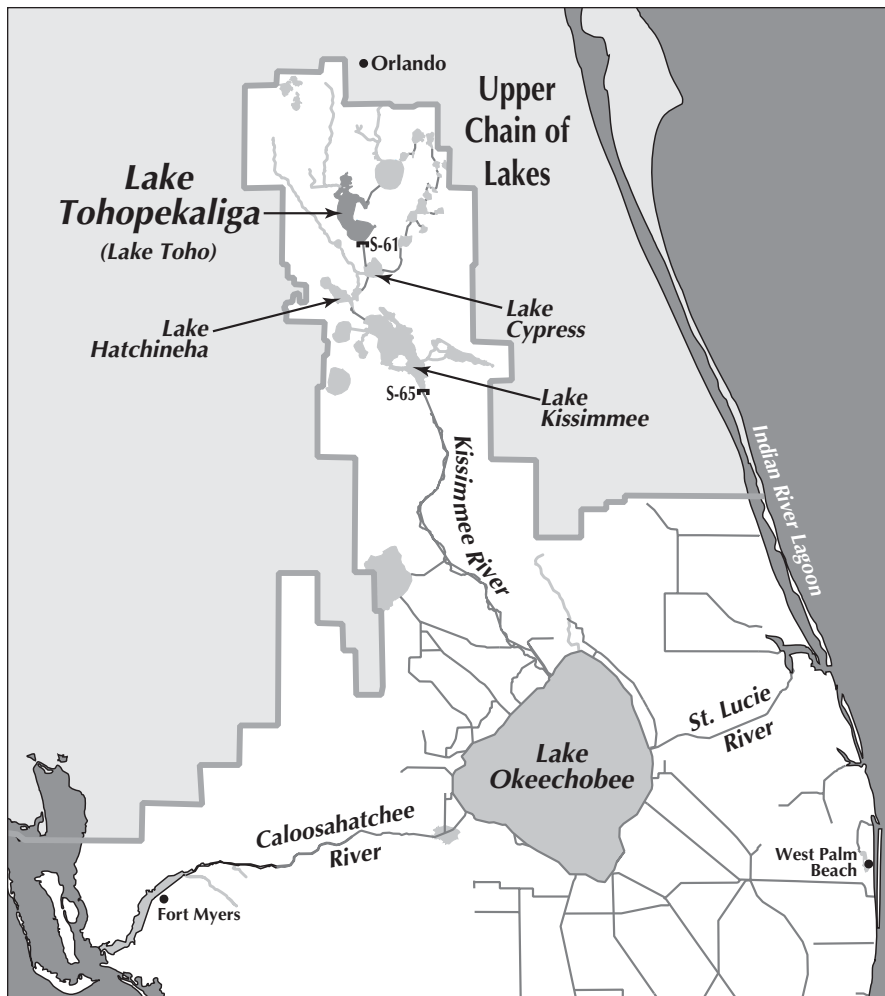
A lake drawdown and habitat enhancement project originally scheduled for 2001-02 was deferred in order to complete an Environmental Impact Statement. It was rescheduled for the fall of 2002. Near-record rainfall within the Kissimmee River basin during December 2002 prompted postponement of the drawdown a second time. With an extremely saturated watershed, there was concern about harming the habitats of Lake Okeechobee or the estuaries if additional water was added to the already stressed system.

Current Situation

Based on current and forecasted favorable conditions in the upper Kissimmee basin, the Florida Fish and Wildlife Conservation Commission, the South Florida Water Management District, and the U.S. Army Corps of Engineers continue to coordinate efforts to implement the habitat enhancement initiative.

Issues regarding hydrology, flood control, environmental factors, and the feasibility of moving the necessary volume of water have been addressed and conditions will continue to be monitored daily. The expected operational start date is projected for mid-November, with the actual date to be ultimately determined by factors such as rainfall and runoff, evaporation, and water levels within the system.

Florida's Water
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With normal rainfall during the summer of 2004, Lake Toho should be back up to normal pool level by the beginning of fall.

Benefits of a Drawdown

As south Florida has a managed water supply and flood control system, certain natural processes in water bodies that support fish and wildlife habitat have been lost. Nature once cleansed its lakes through fluctuations in water levels. During wet times, high water deposited muck upland. During drought, water levels would recede, exposing muck to air and sunlight. This would naturally break down the material and oxidize it, leaving a more natural habitat of clean sand in the lake's littoral zone. A drawdown in Lake Toho will, in effect, mimic a drought.

The Florida Fish and Wildlife Conservation Commission has collected data to support the value of drawdown projects in Lake Toho. Lake lowering projects in 1971 and 1979 allowed muck to consolidate and oxidize, and fish populations dramatically increased. Beginning with the drawdown in 1987, the Commission began the practice of mechanically removing sediment with heavy equipment. After removing around 225,000 cubic yards of muck from the littoral zone of the lake during the spring of 1987, fish production peaked two years later at 608 pounds per littoral acre, an increase of 74 percent compared to 1986 data.

Given all the potential variables, the South Florida Water Management District has calculated that the additional volume of water associated with the Lake Toho drawdown would be equivalent to 1.2 inches on Lake Okeechobee. Some of the drawdown water can be attenuated by the Chain of Lakes south of Lake Toho and the Kissimmee River. However, a combination of input and output factors will determine the actual effect on Lake Okeechobee's water level.

The lake will be lowered to a 49-foot elevation level by mid-February. The drawdown will allow for the removal of 6.7 million cubic yards of exposed organic sediment and associated plant material from shoreline areas. Some of the muck will be trucked to permitted upland disposal sites. Contingency plans have been made to construct in-lake disposal islands in areas where upland sites are not available. After scraping the bottom, herbicide applications will be made to kill unwanted vegetation.

cent compared to 1986 data.

Our water resources are also important recreational resources. Meaningful management includes preventative maintenance. Periodic drawdown and muck removal projects in Lake Toho have improved a degraded habitat while balancing our need for long-term stabilized water levels that are necessary for managing water supply and flood control in central Florida.

– FOR MORE INFORMATION –

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